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ADOLESCENT CAREER ORIENTATIONS--SOME SUPPORTIVE AND CONFLICTING DATA.

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THE EDUCATIONAL AND CAREER ORIENTATIONS OF 2,852 SECONDARY-SCHOOL SOPHOMORE MALES IN BOTH PUBLIC AND PAROCHIAL SCHOOLS WERE SURVEYED BY A QUESTIONNAIRE. THE STUDY SOUGHT TO ASSESS THE RELATIONSHIPS OF SOCIAL STATUS TO TWO ALTERNATE DIMENSIONS OF CHOICE OF EDUCATIONAL AND CAREER GOALS, THE IDEALISTIC AND THE REALISTIC. THE INVESTIGATOR CONCLUDED FROM THE GATHERED DATA THAT BOTH DIMENSIONS OF BOTH EDUCATIONAL AND OCCUPATIONAL ORIENTATIONS VARY SIGNIFICANTLY AND POSITIVELY WITH SOCIAL STATUS, AND THERE IS A SLIGHTLY STRONGER ASSOCIATION BETWEEN STATUS AND THE REALISTIC DIMENSION THAN BETWEEN STATUS AND THE IDEALISTIC DIMENSION. THE RESULTS OF THIS STUDY WERE COMPARED TO THE RESULTS OF PREVIOUSLY PUBLISHED REPORTS. THE COMPARISON SHOWED THAT WHILE MOST PREVIOUS STUDIES HAVE FOUND SIGNIFICANT POSITIVE VARIATIONS OF THE REALISTIC DIMENSION WITH STATUS FOR BOTH CAREER AND EDUCATIONAL GOALS, IN OTHER ASPECTS THE PREVIOUS STUDIES ARE INCONSISTENT. A RELATED REPORT IS AA 000 010. THIS PAPER WAS PRESENTED TO THE MIDWESTERN SOCIOLOGICAL SOCIETY ANNUAL MEETING, APRIL 21-23, 1966. (AL)

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ADOLESCENT CAREER ORIENTATIONS: SOME SUPPORTIVE AND CONFLICTING DATA

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INTRODUCTION

One of the most comprehensively researched areas in the behavioral sciences is that of factors affecting the educational and occupational career orientations of youth. One recently published bibliography alone lists more than 200 references on this topic.[1]

Although this paper reports on but another study of this subject, merely to discuss one more confirmation of, say, the positive association between educational orientations and social status would be to belabor the obvious. Consequently, I have elected to discuss aspects of the study concerning relationships which either are not yet well established in the literature or relationships which this study has found to be not fully consistent with those reported in previously published research.

Specifically, the discussion shall be confined to:

I. The relationship between the idealistic and the realistic dimensions of a career orientation and their respective associations with social status.

II. The effects of parental status discrepancies on career orientations.

III. The status of parental educational stress, pressure, or encouragement as a variable and its contribution to the explanation of variance in educational orientations.

IV. The relationship between ordinal position and educational orientations.

THE STUDY DESIGN

As the first wave in a two wave longitudinal panel design, a precoded questionnaire was administered in 1963 to the 6000 students enrolled as sophomores in all public and parochial secondary schools in six middle-size (population 50,000 to 100,000) Pennsylvania cities. The following analyses are based on the data from 94% of all male students surveyed (N = 2852).

THE DATA

Idealistic and Realistic Dimensions of a Career Orientation

The selection of a career is conceived of by Haller and Miller[2] as a complex form of goal orientation. Noting that the goal an individual selects represents only one of many possible alternative behavior levels, Haller and Miller state that these alternative levels vary in the degree to which they are difficult to achieve and thus can be ranked on a hierarchy of difficulty. Within such a hierarchy, two dimensions can be singled out for particular attention: the idealistic, i.e., the goal level the actor hopes he will be able to achieve, and the realistic, i.e., the goal level the actor is relatively sure he will be able to achieve.

Virtually all studies which have operationalized this conceptual distinction have reported a strong and positive association between the realistic dimension of a career orientation and the status origin of the adolescent respondent.

The case is somewhat less conclusive, however, for the relationship between the idealistic dimension and status origin. Thus, while Empey,[3] and Himmelweit, Halsey, and Oppenheim,[4] found that the idealistic dimension varied positively with status origin, Stephenson[5] reported that although the realistic dimension varied significantly with status, the idealistic dimension did not. To further confuse the issue, Holloway and Berreman[6] reported that while both dimensions of occupational orientations varied positively with status origin, only the realistic dimension of educational orientations so varied.

Cognizant of these conflicting findings, this study sought to assess the relationship of social status to both dimensions of a career orientation. Conceptually, the idealistic dimension, termed an aspiration, was defined as a career goal which the R selects without reference to the adequacy of facilities necessary

for its attainment, while the realistic dimension, termed an expectation, was defined as a career goal which the R selects with reference to the adequacy of facilities necessary for its attainment.[7] In the operational translation of the idealistic dimension, the R, after reading an introductory explanatory paragraph, was asked:

> SUPPOSING you could have the necessary abilities, grades, money, etc., . . .
>
> /Occupational Goal/ . . . what kind of work would you really LIKE TO do after you finish your education?
>
> _____
> (SPECIFIC NAME OR TITLE OF job I would really LIKE TO have)
>
> /Educational Goal/ . . . how far would you really LIKE TO go in school?
>
> 1. ___ 10th or 11th grade
> 2. ___ Graduate from high school
> 3. ___ Technical school
> 4. ___ Business school
> 5. ___ Nursing school
> 6. ___ Two years of college
> 7. ___ Four years of college
> 8. ___ Graduate or professional school

Operationally translating the realistic dimension, the R, after reading the introductory paragraph, was asked:

> CONSIDERING your abilities, grades, financial resources, etc., . . .
>
> /Occupational Goal/ . . . what kind of work do you actually EXPECT TO do after you finish your education?
>
> _____
> (SPECIFIC NAME OR TITIE OF job I actually EXPECT TO get)
>
> /Educational Goal/ . . . how far do you actually EXPECT TO go in school?
>
> 1. ___ 10th or 11th grade
> 2. ___ Graduate from high school
> 3. ___ Technical school
> 4. ___ Business school
> 5. ___ Nursing school
> 6. ___ Two years of college
> 7. ___ Four years of college
> 8. ___ Graduate or professional school

From the analyses of the data (see Tables 1 - 5, Graphs 1 - 3), we were able to draw the following four conclusions:

Tables 1 - 5, Graphs 1 - 3 about here

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1. Both the idealistic and the realistic dimensions of both educational and occupational orientations vary positively and significantly with social status. Thus, for example, 88% of Upper Middle status R's report a college aspiration as opposed to 43% of Lower Working R's; 79% of Upper Middle R's report a college expectation as opposed to 19% of the Lower Working R's. Similar percentage differences exist for the two dimensions of occupational orientations.

2. There is a slightly stronger association between the realistic dimension of a career orientation and social status than between the idealistic dimension and social status. For example, the gamma[8] for educational expectations and status is .464 versus .431 for educational aspirations and status.

3. The proportion of R's actually expecting to achieve their aspiration of college or of a minor to major professional or administrative position varies positively with social status. For example, an inspection of Graph 3 reveals that of those R's in the lowest Duncan bracket who express a college aspiration, only 46% similarly express a college expectation, contrasted with 83% in the highest Duncan bracket.

4. Incorporating the distinction between these two dimensions elicits rather valid realistic responses from students, as evidenced by the fact that 39% of the 1963 survey cohort actually expected to go to a four year college compared with 35% of the preceding 1964 cohort who were actually enrolled in a four year college in October following their high school commencement.[9]

Educational Orientations and Parental Educational Discrepancies

As the individual gammas of Tables 2 - 5 show, the statistical association between the career orientations of an individual and his status origin is far from unity. Just as there are analytically deviant middle strata youth who express low career orientations so too are there analytically deviant lower strata youth who express high career orientations. One of the variables which has been employed

in an effort to account at least for the deviant lower strata case is that of parental status discrepancies. Thus, Lipset and Bendix have written:

> The childhood experiences of lower status men who later become business leaders often show a pattern of strong mothers and weak fathers, and an emotionally unsatisfying family life. If it is assumed that a situation in which the mother has higher social status than the father is likely to result in this pattern of intrafamily relations, then families in which the mother had a higher occupational status than the father before marriage should result in higher social mobility.[10]

The hypothesis that maternal status superiority results in high educational goals among working class adolescents has been tested and supported by a number of researchers, among them Ellis and Lane,[11] and Krauss.[12] The interpretation usually ascribed to such findings is, as Allison Davis has written, that:

> A lower-middle class woman who marries a man from the upper part of the working class usually begins to try to recoup her original social status either by reforming her husband's behavior to meet lower middle class standards or by seeking to train and propel her children toward the status she once had.[13]

Using educational differences between husband and wife as an index of status discrepancy and defining a situation of <u>marked</u> status discrepancy to exist whenever one parent has 13 or more years of education and the other 11 years or less, Tables 6 and 7 indicate that this status discrepancy hypothesis was strongly

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Tables 6 - 7 about here

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supported by our data. Thus, for example, while only 31% of all working class R's expect to go to college, 50% of working class R's under the condition of marked maternal educational superiority so expect, contrasted with 30% under the condition of marked paternal educational superiority. Three findings, however, merit additional comment.

First: Table 7 reveals that marked maternal status superiority operates on occupational orientations much in the way it does on educational orientations. And, both Tables 6 and 7 indicate that parental status discrepancies affect both the idealistic as well as the realistic dimension of an adolescent career orientation.

Second: The data in Table 8 suggests that in families characterized by

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Table 8 about here

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marked maternal status superiority not only the mother but the father as well set higher educational goals for their son. Tentatively, we would infer that in families characterized by marked maternal superiority not only does the mother influence her son directly, but also indirectly, i.e., by influencing her husband to influence the son.

Third: Although the cell denominator in the marked maternal status superiority category for the middle class in Tables 6 and 7 is only 6, and consequently subject to unreliability, the data do suggest that the effects of maternal status superiority exist in the middle as well as in the working class. Should subsequent studies substantiate this finding, it would seem that a revision of the "classical" downward mobility interpretation is necessary inasmuch as a moderately-to-well educated middle-class woman who marries a poorly educated middle-class man should, in theory at least, experience less status deprivation than would the same type of woman who marries a poorly educated working-class man.

Parental Educational Encouragement: Intervening or Independent Variable

In the two preceding sections, social status has been shown to be statistically associated with educational orientations. Such an association does not, however, facilitate an understanding of how different levels of status produce different levels of educational orientations. Clearly, what is called for is an interpretation procedure, a procedure which will permit a meaningful understanding of why there is an association between educational orientations and status, or its components of occupation and education.

One approach toward interpretation was Kahl's use of the concept of parental educational pressure which he defined as

> a clear and overt attempt by either or both parents to influence their son to go to college.[14]

Some confirmation of parental pressure as an intervening variable came from Bordua's study of "Educational Aspirations and Parental Stress on College," in which he was able to show that parental stress on college, when statistically controlled, reduced the association of college plans with status measured with father's occupation, from a Pearsonian r of .36 to .19, this 47% reduction suggesting that parental stress is an intervening variable between status and college plans.[15]

With our curiosity aroused by these two studies, we proceded to test the assumption that parental pressure, stress, or as we call it, encouragement, is an intervening variable.

The measurement of parental educational encouragement consisted in asking the R how often each parent urged him to continue his education beyond high school. Four response categories were available: (1) Never, (2) Sometimes, (3) Often, and (4) Constantly. Three levels of encouragement were derived: High -- when the R answered that both parents "Often" or "Constantly" urged him, Low -- when

the R answered that both parents "Never" or "Sometimes" urged him, and Moderate -- when the R answered "Never" or "Sometimes" for one parent and "Often" or "Constantly" for the other.

Three separate measures of status were employed: occupation of the father, as per the occupational rating scale in the Hollingshead Two Factor Index,[16] the education of the father, and of the mother, as per the educational rating scale in the Two Factor Index.

All statistical partialling operations were executed with Rosenberg's test factor standardization technique[17] and degrees of association measured with the Goodman-Kruskal gamma.[18]

After ascertaining that parental encouragement is positively associated with each of the three status variables at both the zero and the second order level, and with educational expectations at both the zero and third order level, (see Tables 9 and 10), we sought to learn if a statistical control for parental encour-

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Tables 9 - 10 about here

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agement would markedly reduce the association of educational expectations with each of the three status variables, as indeed the control should if encouragement is an intervening variable. Since each of the three status variables are intercorrelated (see Table 11) any direct linkage of the dependent variable with one or

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Table 11 about here

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more of the status variables could obscure an indirect linkage, via parental encouragement, of educational expectations with the particular status variable under analysis. Consequently, the analysis required a comparison of second and

third order partials, e.g., educational expectations and, say, occupation, controlling for father's and mother's education; contrasted with educational expectations and occupation, controlling for father's and mother's education and parental encouragement, the hypothesized intervening variable. Table 12 displays the data.

Table 12 about here

Inasmuch as the control for parental encouragement resulted in an average reduction of third over second order partials of only 20%, the analyses failed to support parental encouragement as an intervening variable, a finding contradicting that of Bordua's study. Tentatively, then, this variable should be conceived of as an independent variable, a determinant of educational expectations in its own right.

Having thus classified parental encouragement as an independent variable, we proceded to compute the total amount of variance explained by these four variables, i.e., by occupation, father's and mother's education, and parental encouragement. Since Costner[19] has written that gamma, like r, is a measure of association which can be used to provide an estimate of the proportional reduction in error, we have taken the liberty of inserting the appropriate gamma values into a fourth order multiple correlation equation from which a multiple R of .697 was computed, indicating that these four variables account for approximately 49% of the variance in educational expectations.[20]

Ordinal Position and Educational Expectations

Thus far, our discussion has focused primarily on the process variable of parental encouragement and on the macro-structural variable of social status and its components of occupation and education. We now turn to a consideration of a micro-structural variable, ordinal position, and its relationship with educational expectations.

Studies, beginning with those of Galton,[21] Yoder,[22] Ellis,[23] and others too numerous to mention have reported a strong inverse association between birth order and eminence. After a careful review of such studies, however, Schachter[24] concluded that this association is essentially a reflection of the fact that scholars, eminent or not, have traditionally come from a college population in which first and second borns are in marked surplus. The question of why first borns seem to be overrepresented in college populations is beyond the immediate scope of this paper.[25] An assessment of whether a greater proportion of first borns express a college expectation than succeeding borns and would, therefore, be overrepresented among all R's expressing such an expectation, is not, however, beyond the purview of the paper.

Table 13 presents the first order percentage association of educational expec-

Table 13 about here

tations and birth order, with status as a control variable. Looking at the column marginals one can observe that there is a slight tendency for a greater percentage of first borns to express a college expectation than for succeeding borns, e.g., 43% for 1st borns, 25% for intermediate borns, and 35% for last borns. This tendency is not consistent, however, throughout the four status levels as evidenced by the fact that in the Upper Middle stratum 84% of last borns vs. 82% of 1st borns express a college expectation. The only consistent datum is that the intermediate borns are least likely to express an expectation to go to college.

The data in Table 13 do not provide a rigorous test of the hypothesis, however, inasmuch as numerous studies have shown educational orientations to be inversely associated with family size[26] and in Table 13 at least some proportion of 1st borns are confounded with a family size of one. Consequently, it is necessary to control for family size and, since family size is not completely independent of social status, we shall also retain the control for that variable.

Table 14 displays the percentage association of educational expectations and

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Table 14 about here

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ordinal position, controlling for family size and social status. From a careful inspection of this table it can be seen that even the modest percentage differences which existed in Table 13 favoring first over succeeding born in all but the Upper Middle stratum have now virtually disappeared. Thus, for a family size of 5+, in only one out of four cases does the percent expressing college expectations for first born exceed that for succeeding born (UM); for a family size of 3-4 no such cases exist; for a family size of 2, however, there are three out of four cases favoring first born (UM, LM, and UW). The only ordinal position which does not show at least one case having the highest percentage expressing a college expectation is that of intermediate born.

Consequently, if in point of fact, there does exist an asscciation between educational orientations and ordinal position, the data in Tables 13 and 14 would lead us to conclude that the association is not invariant under all conditions, that it is one which involves both first and second order interactions with social status and family size, interactions whicl all but defy a comprehensible verbal summary.

Of course, these data cannot be interpreted as implying that, even for this specific population, first borns will not be overrepresented in a college population. For, it is possible that the mechanism(s) which is (are) responsible for an overrepresentation of first borns operate not on expected career behavior but on actual career behavior. Clearly, further research on this intriguing problem is warranted.

SUMMARY AND CONCLUSIONS

Data from a recent study of the career orientations of 2800 urban Pennsylvania male high school sophomores have been compared with the results of previously published studies in four topic areas: (1) the idealistic and the realistic dimensions of a career orientation and the associations of each with social status; (2) the effects of marked parental educational discrepancies on career orientations; (3) the position of parental educational encouragement as an intervening or an independent variable; and (4) the relationship of career orientations and ordinal position.

With respect to the two dimensions of a career orientation, the findings of previous research have not been consistent. Some studies have reported significant and positive variations of both dimensions with status, others have reported that only the realistic dimension varies significantly and positively with status. Also, at least one study has reported that while both dimensions of an occupational orientation vary significantly and positively with status, only the realistic dimension of educational orientations so varies. The data from this study have shown, and conclusively so, that <u>both</u> dimensions of <u>both</u> educational and occupational orientations vary significantly and positively with social status, although there is a slightly stronger degree of association between status and the realistic dimension than between status and the idealistic dimension.

The data on marked parental educational discrepancies were fully consistent with those of previous investigations in that the condition of marked maternal educational superiority was shown to produce a much greater proportion of adolescents expressing high occupational or educational orientations than was the condition of marked paternal educational superiority. What was not fully consistent with the status deprivation hypothesis usually accorded this phenomenon was that this effect was found to exist in the middle as well as in the working strata.

Concerning the variable of parental educational encouragement, the data of this study did not conclusively support the theoretical and empirical results of at least two previous studies which have posited educational encouragement, stress, or pressure as a variable which intervenes between the status dimensions of occupation or education and adolescent career orientations. Rather, the present data suggest that parental encouragement is an independent determinant of adolescent career orientations.

Finally, the moderate inverse association between educational expectations and ordinal position which has been reported in a number of previous studies, while present in this study at the zero order level, failed to hold up consistently when controls for the possibly confounding variables of social status and family size were introduced.

It would be possible, of course, to "explain away" the discrepancies which have emerged between this and preceding studies by attributing them to differences in sampling techniques, operationalization of variables, statistical testing, etc. Probably, some of the discrepancies are a function of such differences. But, there is no more justification for asserting that all of the discrepancies are a function of methodological differences than for asserting that none of the

differences are. Also, the use of methodology as a "dissonance reducing" factor tends to remove any felt necessity for a re-examination of theoretical premises and suppositions. While such a re-examination is not within the domain of this particular paper, it is the writer's opinion that the nature of the discrepancies cited above would make such an endeavor both necessary and rewarding.

TABLE 1

PERCENT OF RESPONDENTS REPORTING SPECIFIED CAREER ORIENTATIONS, BY DUNCAN SOCIOECONOMIC SCORES

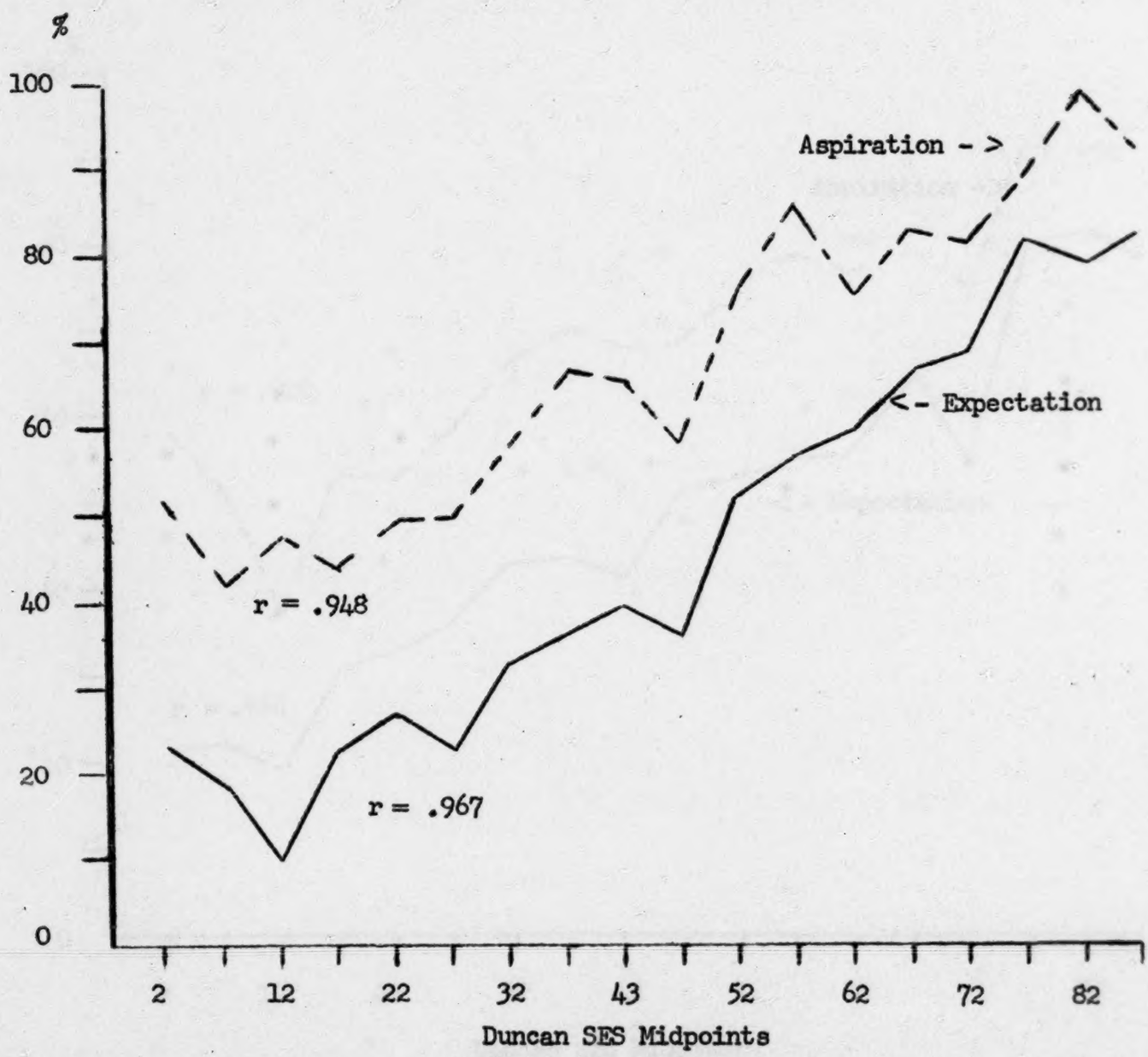
Midpoint[a] SEI Scores	Aspirations: Major to Minor Prof. or Admin. Occups.	Aspirations: Four or More Years of College	Expectations: Major to Minor Prof. or Admin. Occups.	Expectations: Four or More Years of College	N
02	59	52	21	24	28
07	51	42	22	19	237
12	38	48	19	10	49
17	53	45	31	23	524
22	53	50	33	27	219
27	59	50	36	24	132
32	66	58	44	34	233
37	70	68	44	36	114
42	68	65	42	40	314
47	69	58	52	36	127
52	77	77	54	53	300
57	79	86	55	57	65
62	77	76	56	60	70
67	79	83	65	67	228
72	75	82	55	68	44
77	92	88	80	82	50
82	91	99	82	79	67
90	94	92	78	82	51
Totals	63	61	43	39	2852
Pearsonian correlation with SEI	.93	.95	.97	.97	

NOTE: Pearsonian and Spearman values are approximately the same

[a]Duncan, Otis Dudley. "A Socio-Economic Index for All Occupations," in Reiss, Albert J. Jr. Occupations and Social Status, Glencoe: The Free Press, 1961.

GRAPH 1

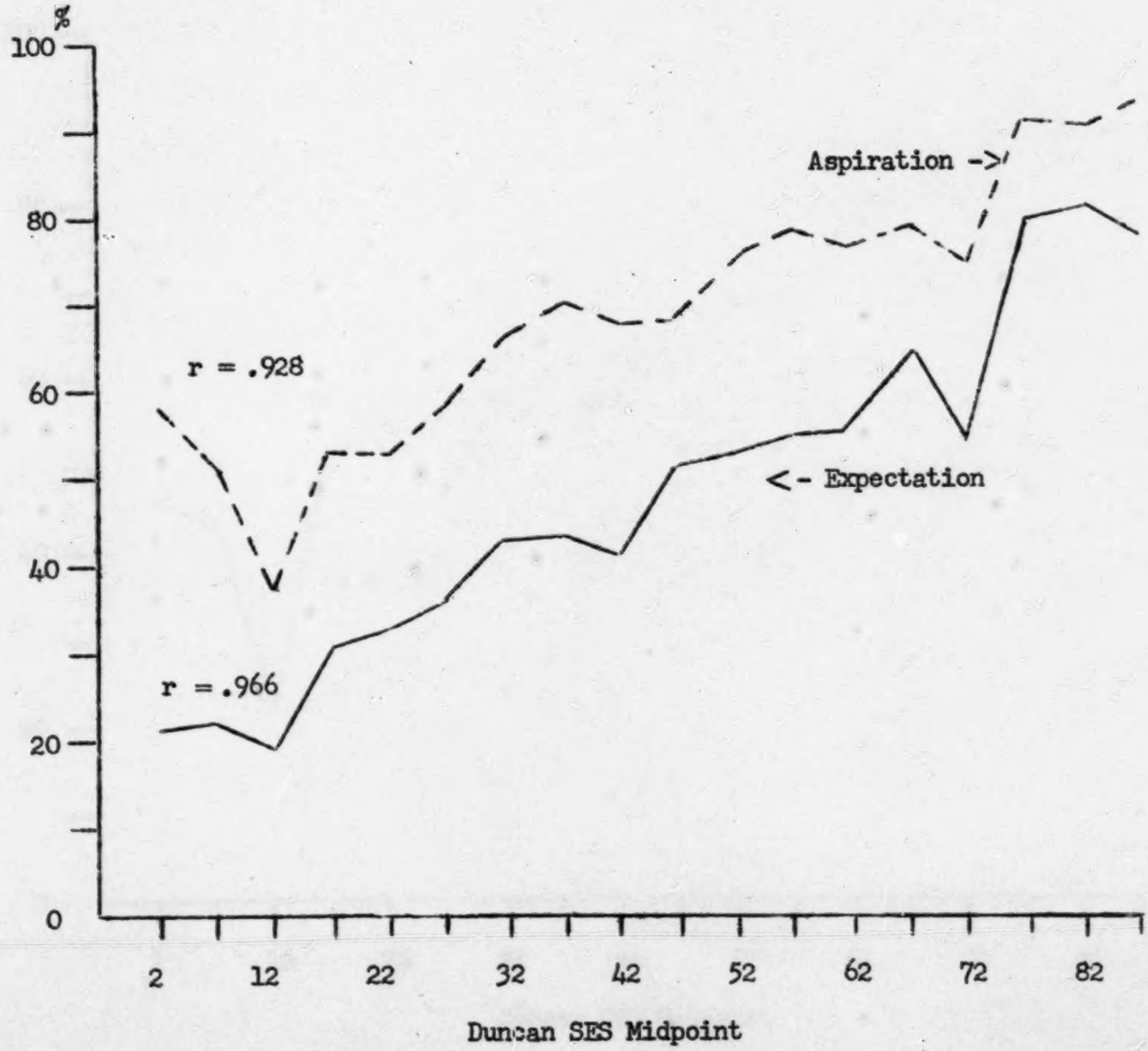
PERCENT OF RESPONDENTS REPORTING ASPIRATIONS AND EXPECTATIONS
TO FOUR OR MORE YEARS OF COLLEGE by Duncan SES



Graph 2

PERCENT RESPONDENTS REPORTING OCCUPATIONAL ASPIRATION AND EXPECTATION TO MINOR OR MAJOR PROFESSIONAL AND ADMINISTRATIVE POSITIONS

by Duncan SES



GRAPH 3

PERCENT RESPONDENTS ASPIRING TO FOUR OR MORE YEARS OF COLLEGE
WHO ALSO EXPECT TO FOUR OR MORE YEARS OF COLLEGE
by Duncan SES

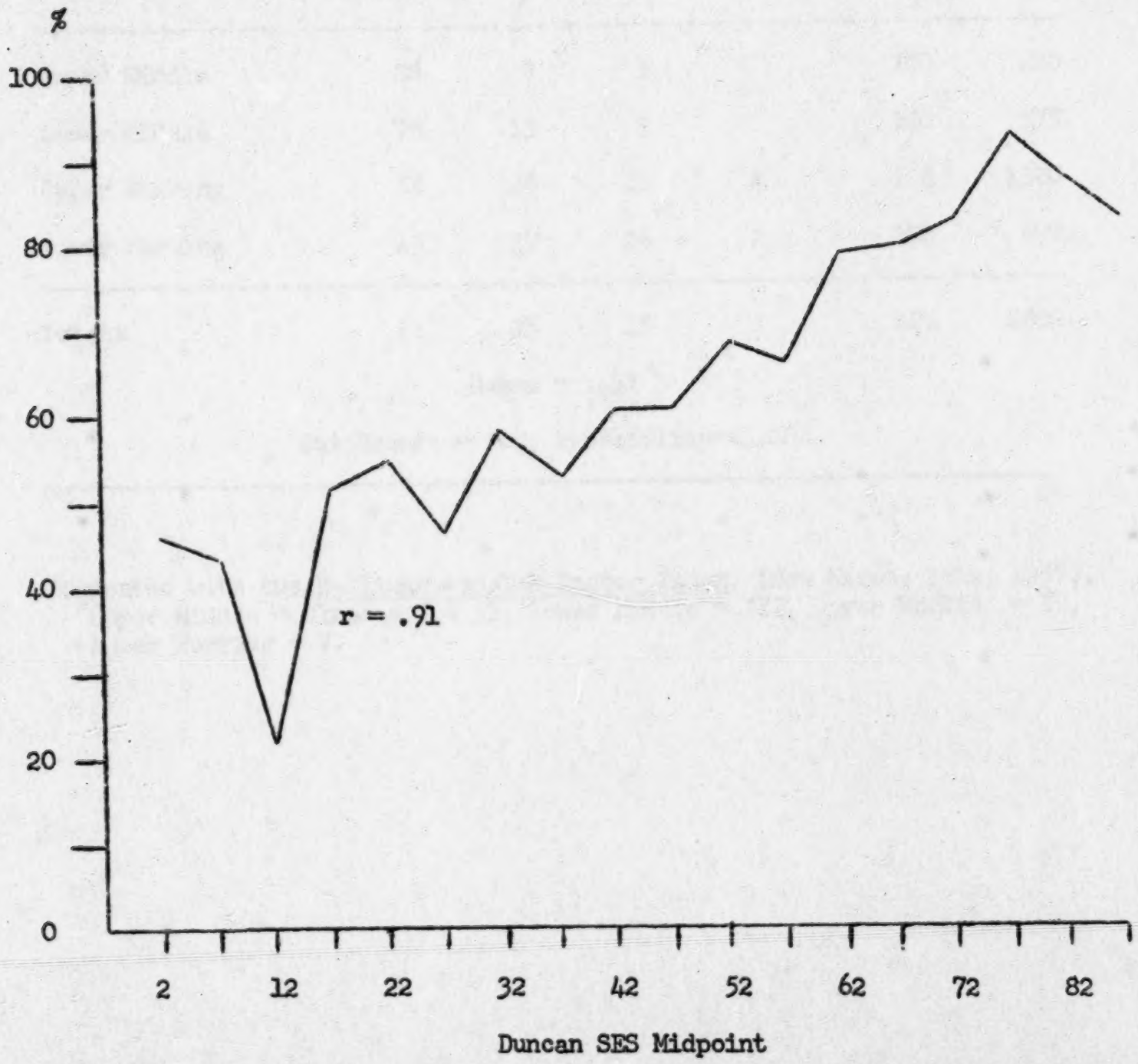


TABLE 2

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL ASPIRATIONS, BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Hollingshead Socioeconomic Status[a]	Aspiration Level (In Years) 16 or more	14	12 or less	N.R.	Total	N
Upper Middle	88	9	3		100	220
Lower Middle	78	13	9		100	575
Upper Working	58	26	14	2	100	1380
Lower Working	43	29	26	2	100	677
Totals	61	23	15	1	100	2852

Gamma = .431

Chi Square = 267; Probability $<$ .001

[a]Computed with the Hollingshead Two Factor Index, (New Haven: Yale, 1957). Upper Middle = Classes I & II, Lower Middle = III, Upper Working = IV, Lower Working = V.

TABLE 3

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL EXPECTATIONS, BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Hollingshead Socioeconomic Status[a]	Expectation Level (In Years) 16 or more	14	12 or less	N.R.	Total	N
Upper Middle	79	13	8		100	220
Lower Middle	57	20	22	1	100	575
Upper Working	35	24	40	1	100	1380
Lower Working	19	23	56	2	100	677
Totals	39	22	38	1	100	2852

Gamma = .464

Chi Square = 371, probability<.001

[a]Computed with the Hollingshead Two Factor Index. Upper Middle = Classes I & II, Lower Middle = III, Upper Working = IV, Lower Working = V.

TABLE 4

PERCENT OF RESPONDENTS REPORTING SPECIFIED OCCUPATIONAL ASPIRATIONS, BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Social Status	Aspiration Level[a]						
	Major to Minor Prof. and Admin.	Technical and Clerical	Skilled and Semi-Skilled	Un-Skilled	N.R.	Total	N
Upper Middle	86	4	2	1	7	100	220
Lower Middle	75	9	9	1	6	100	575
Upper Working	63	11	20	0	6	100	1380
Lower Working	46	12	29	1	12	100	677
Totals	63	10	19	1	7	100	2852

Gamma = .410

Chi Square = 173, probability =< .001

[a]Occupations classified by the Hollingshead Two Factor Index occupational scale, categories 1 - 3, 4, 5 - 6, and 7, respectively.

TABLE 5

PERCENT OF RESPONDENTS REPORTING SPECIFIED OCCUPATIONAL EXPECTATIONS, BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Social Status	Expectation Level[a]						
	Major to Minor Prof. and Admin.	Technical and Clerical	Skilled and Semi-Skilled	Unskilled	N.R.	Total	N
Upper Middle	76	10	4	1	9	100	220
Lower Middle	58	11	14	1	16	100	575
Upper Working	40	12	28	2	18	100	711
Lower Working	24	12	35	3	26	100	677
Totals	43	12	25	2	19	101	2852

Gamma = .448

Chi Square = 243, probability $<.001$

[a]Occupations classified by the Hollingshead Two Factor Index occupational scale, categories 1 - 3, 4, 5 - 6, and 7, respectively.

TABLE 6

THE EFFECTS OF PARENTAL EDUCATIONAL DISCREPANCIES ON THE EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF ADOLESCENTS, PERCENT OF RESPONDENTS REPORTING EDUCATIONAL ASPIRATIONS AND EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS CATEGORIES: MIDDLE AND WORKING

Hollingshead Socioeconomic Status	Educational Dimension of Respondent	Parental Educational Discrepancy: Mother 13+ Father 11-	Parental Educational Discrepancy: Father 13+ Mother 11-	Difference MES - PES[a]	Mean % Per SES Category	Differences: MES minus Category	Differences: PES minus Category
Upper and Lower Middle[c]	Aspirations	100.0 (6)	76 (55)	24	81 (795)	+19	-4
	Expectations	83 (6)	62 (55)	+21	65 (795)	+18	-3
Upper and Lower Working[d]	Aspirations	66 (76)[b]	50 (40)	+16	55 (2097)	+11	-5
	Expectations	50 (76)	30 (40)	+20	31 (2097)	+19	-1

[a]Percent respondents in the MES category reporting college career orientations minus percent respondents in the PES category reporting college career orientations.

[b]Cell denominator n's

[c]Upper and Lower Middle Hollingshead status categories collapsed for statistical reliability

[d]Upper and Lower Working Hollingshead status categories collapsed for statistical reliability

TABLE 7

THE EFFECTS OF PARENTAL EDUCATIONAL DISCREPANCIES ON THE OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF ADOLESCENTS: PERCENT OF RESPONDENTS REPORTING OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS TO MINOR OR MAJOR PROFESSIONAL OR ADMINISTRATIVE POSITIONS, BY HOLLINGSHEAD SOCIOECONOMIC STATUS CATEGORIES: MIDDLE AND WORKING

Hollingshead Socioeconomic Status	Occupational Dimension of Respondent	Parental Educational Discrepancy: Mother 13+ Father 11-	Parental Educational Discrepancy: Father 13+ Mother 11-	Difference MES - PES[a]	Mean % Per SES Category	Differences: MES minus Category	Differences: PES minus Category
Middle[c]	Aspirations	86 (6)[b]	69 (55)	+17	81 (795)	+5	-12
	Expectations	86 (6)	52 (55)	+34	65 (795)	+21	-13
Working[d]	Aspirations	76 (76)	63 (40)	+13	62 (2057)	+14	+1
	Expectations	61 (76)	31 (40)	+30	32 (2057)	+29	-1

[a]Percent in the MES cell minus percent in the PES cell.

[b]Cell denominator n's

[c]Upper and Lower Middle Hollingshead status categories collapsed for statistical reliability

[d]Upper and Lower Working Hollingshead status categories collapsed for statistical reliability

TABLE 8

THE EFFECTS OF PARENTAL EDUCATIONAL DISCREPANCIES ON THE REPORTED EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF PARENTS FOR THEIR SONS: PERCENT OF RESPONDENTS REPORTING PATERNAL, MATERNAL ASPIRATIONS AND EXPECTATIONS FOR SONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIO-ECONOMIC STATUS CATEGORIES: MIDDLE AND WORKING

Hollingshead Socioeconomic Status	Educational Dimension of Parent for Son	Parental Educational Discrepancy: Mother 13+ Father 11-	Parental Educational Discrepancy: Father 13+ Mother 11-	Difference MES - PES[a]	Mean % Per SES Category	Differences: MES minus Category	Differences: PES minus Category
	Aspirations:						
	Maternal	100	78	+22	77	+23	+1
	Paternal	86	74	+12	77	+9	-3
Middle[c]		(6)[b]	(55)		(795)		
	Expectations:						
	Maternal	43	59	-16	58	-15	+1
	Paternal	57	52	+5	56	+1	-4
	Aspirations:						
	Maternal	74	51	+23	53	+21	-2
	Paternal	65	54	+11	52	+13	+2
Working[d]		(76)	(40)		(2057)		
	Expectations:						
	Maternal	51	23	+28	27	+24	-4
	Paternal	43	23	+20	26	+17	-3

[a]Percent in the MES cell minus percent in the PES cell
[b]Cell denominator n's
[c]Upper and Lower Middle Hollingshead status categories collapsed for statistical reliability
[d]Upper and Lower Working Hollingshead status categories collapsed for statistical reliability

TABLE 9

ZERO AND SECOND ORDER ASSOCIATIONS: PARENTAL EDUCATIONAL ENCOURAGEMENT, BY OCCUPATION OF FATHER, EDUCATION OF FATHER, AND EDUCATION OF MOTHER
(In Percentages)

Independent Variable Name	Level	Zero Order Parental Encouragement High	Med.	Low	N.R.	Sum	Second Order Parental Encouragement High	Med.	Low	N.R.	Sum	N
							Controlled: Ed. Fa., Ed. Mo.					
Occupation	White Collar	64	18	14	4	100	61	19	15	4	99	1233
	Blue Collar	46	20	29	5	100	49	19	27	4	99	1619
				Gamma = .351					Gamma = .246			
							Controlled: Oc. Fa., Ed. Mo.					
Education of Father	High School. Grad. or more	62	18	18	2	100	59	18	20	3	100	1505
	Partial High Schl. or less	48	21	27	4	100	50	21	25	4	100	1095
	No Response	35	17	32	16	100	40	19	25	16	100	252
				Gamma = .252					Gamma = .139			
							Controlled: Oc. Fa., Ed. Fa.					
Education of Mother	High School Grad. or more	61	18	18	3	100	58	18	20	4	100	1684
	Partial High Schl. or less	45	22	28	4	99	48	22	26	4	100	1015
	No Response	37	12	36	14	99	45	14	30	11	100	153
				Gamma = .291					Gamma = .189			

TABLE 10

ZERO AND THIRD ORDER ASSOCIATIONS: EDUCATIONAL EXPECTATIONS OF RESPONDENT, BY PARENTAL EDUCATIONAL ENCOURAGEMENT

(In Percentages)

Level of Independent Variable of Parental Encouragement	Zero Order Educational Expectations 16 or more	14	12 or less	N.R.	Sum	Third Order Educational Expectations 16 or more	14	12 or less	N.R.	Sum	N
						Controlled: Oc. Fa., Ed. Fa. & Mo.					
High	54	24	22	1	101	50	25	24	1	100	1544
Medium	31	28	41	1	101	32	28	39	1	100	546
Low	13	13	73	1	100	17	14	68	1	100	640
No Response	30	21	45	3	99	39	23	35	3	100	122
Totals	39	22	38	1	100	39	22	38	1	100	2852
		Gamma = .587					Gamma = .497				

TABLE 11

INTERCORRELATION OF STATUS VARIABLES: OCCUPATION OF FATHER, EDUCATION OF FATHER, AND EDUCATION OF MOTHER

(Gamma Values)

	Occupation of Father	Education of Mother
Education of Father	.623	.518
Education of Mother	.488	

TABLE 12

THE EFFECTS OF CONTROLLING FOR PARENTAL EDUCATIONAL ENCOURAGEMENT ON THE DEGREE OF ASSOCIATION OF EDUCATIONAL EXPECTATIONS WITH: OCCUPATION OF FATHER, EDUCATION OF FATHER, EDUCATION OF MOTHER. ZERO, SECOND AND THIRD ORDER ASSOCIATIONS

(In Percentages)

Independent Variable		ZERO ORDER Educational Exps. (In Years)					SECOND ORDER Educational Exps. (In Years)					THIRD ORDER Educational Exps. (In Years)					N
		16+	14	12-	NR	Sum	16+	14	12-	NR	Sum	16+	14	12-	NR	Sum	
		No Vars. Controlled					Two Remaining Indep. Vars. Controlled					Two Remaining Indep. and Parent. Encour. Controlled					
Occupation	White Collar	57	19	23	1	100	49	21	29	1	100	47	20	32	1	100	1233
	Blue Collar	26	24	49	1	100	30	25	45	1	101	31	25	44	1	101	1619
			Gamma = .509					Gamma = .329					Gamma = .265				
Education of Father	12+ Years[a]	51	21	27	1	100	45	23	31	1	100	45	23	32	1	101	1505
	11- Years[b]	26	24	49	1	100	32	24	44	1	101	32	24	43	1	100	1095
	N.R.	22	21	54	3	100	27	21	49	3	100	28	22	47	3	100	252
			Gamma = .431					Gamma = .245					Gamma = .227				
Education of Mother	12+ Years[a]	49	22	29	1	101	44	23	32	1	99	42	23	34	1	100	1684
	11- Years[b]	26	22	50	2	100	32	22	45	1	100	34	22	43	1	100	1015
	N.R.	22	21	54	3	100	32	18	49	1	100	32	19	48	1	100	153
			Gamma = .430					Gamma = .231					Gamma = .162				
Totals		39	22	38	1	100	39	22	38	1	100	29	22	38	1	100	2852

[a]12+ Years = High School Graduate or more

[b]11- Years = Partial High School or less

TABLE 13

PERCENT OF RESPONDENTS REPORTING EDUCATIONAL EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY ORDINAL POSITION, AND HOLLINGSHEAD SOCIAL STATUS

Hollingshead Socioeconomic Status	Ordinal Position				
	First	Second	Inter-mediate	Last	Total
Upper Middle	82 (120)[a]	76 (59)	71 (21)	84 (19)	79 (219)
Lower Middle	61 (312)	54 (173)	44 (43)	55 (47)	57 (575)
Upper Working	37 (690)	34 (386)	24 (146)	37 (159)	35 (1381)
Lower Working	23 (279)	22 (157)	11 (127)	16 (110)	19 (673)
Totals	43 (1401)	39 (775)	25 (337)	35 (335)	39 (2848)

[a]Cell denominator n's

TABLE 14

PERCENT OF RESPONDENTS REPORTING EDUCATIONAL EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS, FAMILY SIZE, AND ORDINAL POSITION

Hollingshead Socioeconomic Status	Family Size By No. of Children	Ordinal Position: First Born	Second Born[a]	Intermediate	Last Born	Averages
Upper Middle	1	89				89
	2	87	70			80
	3 and 4	81	81	86	93	84
	5+	60	80	64	60	66
	Averages	82	76	71	84	80
Lower Middle	1	66				66
	2	63	59			61
	3 and 4	56	53	55	63	56
	5+	53	43	41	41	45
	Averages	61	54	44	55	57
Upper Working	1	40				40
	2	44	41			43
	3 and 4	34	30	37	38	34
	5+	26	24	19	31	24
	Averages	37	34	24	37	35
Lower Working	1	28				28
	2	26	29			27
	3 and 4	18	20	8	14	17
	5+	16	9	11	17	13
	Averages	23	22	11	16	19
Totals	1	47				47
	2	48	45			47
	3 and 4	41	37	35	37	39
	5+	31	29	21	29	27
	Averages	43	39	25	35	39

[a]For family size of two, second born includes the second or last born for the row "Averages," since this row does not control for family size.

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20. Shortly after completing this paper, a colleague brought to my attention a paper by James A. Davis of NORC entitled "A Net Partial and a Multiple Coefficient for Goodman and Kruskal's Gamma." In this paper Davis develops and discusses direct computational formulae for a net partial gamma and for a multiple gamma. In the near future I plan to compare the gamma coefficients derived by Rosenberg's test factor standardization technique and by the insertion of the appropriate gammas into the multiple correlation formula with those derived by the techniques suggested by James Davis.

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25. Discussions of some of the reasons why first borns are thought to be over-represented in college populations may be found in the aforementioned work of Schachter, and also in Lipset and Bendix's Social Mobility in Industrial Society as well as in some of the research done by Bernard C. Rosen and published in the American Sociological Review of recent years.

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